

K103808

**510(k) Summary**

SEP - 1 2011

This 510(k) Summary is submitted in accordance with 21 CFR 807.92(c).

**Submitter:** OrbusNeich Medical, Inc.  
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**Contact Person:** John D. Pazienza

**Date Prepared:** September 1, 2011

**Trade Name:** Sapphire NC Coronary Dilatation Catheter

**Common Name:** Percutaneous Transluminal Coronary Angioplasty (PTCA) Catheter

**Classification Name:** Catheters, transluminal coronary angioplasty, percutaneous (21 CFR 870.5100(a), Product Code LOX)

**Predicate Devices:** NC Sprinter RX (P790017 S095; cleared October 10, 2008)  
Voyager NC (P810046 S226; cleared August 21, 2008)  
Quantum Maverick (P860019 S182; cleared October 1, 2002)  
NC Quantum Apex (P860019 S241; cleared April 16, 2010)  
Dura Star (P880003 S089; cleared August 29, 2007)

**Device Description:** The Sapphire NC coronary dilatation catheter is a percutaneous transluminal coronary angioplasty (PTCA) balloon catheter with a working length of 140cm. The proximal shaft is a polymer coated stainless steel hypotube. Lubricious coatings are applied to the distal section. The non-compliant balloons, available in diameters from 2.0-4.0mm and lengths from 8-18mm, can be inflated by injecting dilute contrast media solution through the trailing hub of the catheter. Two radiopaque platinum marker bands are located within the balloon segment. The catheter is compatible with 5F or larger guiding catheters. The internal lumen of the catheter accepts a standard 0.014 inch PTCA guidewire. The proximal part of the guidewire enters the catheter tip and advances coaxially out the catheter proximal port, thereby allowing both coaxial guidance and rapid exchange of catheters with a single standard length guidewire. Two marked sections are located on the hypotube shaft to indicate catheter position relative to the tip of either a brachial or femoral guiding catheter. The design of this dilatation catheter does not incorporate a lumen for distal dye injections or distal pressure measurements.

Intended Use:	<p>The Sapphire NC Coronary Dilatation Catheter is indicated for:</p> <ul style="list-style-type: none"> <li>• balloon dilatation of the stenotic portion of a coronary artery or bypass graft stenosis in patients evidencing coronary ischemia for the purpose of improving myocardial perfusion</li> <li>• balloon dilatation of a coronary artery occlusion for the treatment of acute myocardial infarction</li> <li>• in-stent restenosis</li> <li>• post-delivery expansion of balloon expandable coronary stents</li> </ul> <p>Note: The subject device was tested on the bench with the OrbusNeich Blazer Cobalt-Chromium (CoCr) Alloy Stent. All stents should be deployed in accordance with the manufacturer's indications and instructions for use.</p>
Technological Characteristics:	<p>Comparisons of the new and predicate devices show that the technological characteristics such as product performance, design, and intended use are substantially equivalent to the currently marketed predicate devices.</p>
Performance Data:	<p>Both <i>in vitro</i> performance tests such as dimensional verification, balloon preparation, deployment, and retraction, balloon rated burst pressure, balloon fatigue, balloon compliance, balloon inflation and deflation time, catheter bond strength, tip pull strength, flexibility and kinking, torque strength, radiopacity, coating integrity, particulate evaluation, within stent balloon burst pressure, within stent balloon fatigue, and also biocompatibility tests such as cytotoxicity, sensitization, hemocompatibility, pyrogenicity, acute systemic toxicity, and intracutaneous reactivity were conducted on the Sapphire NC PTCA catheter. The test results met all acceptance criteria, were similar to predicate devices, and ensure that the Sapphire NC PTCA catheter design and construction are suitable for its intended use as recommended by the Class II Special Controls Guidance Document for Certain Percutaneous Transluminal Coronary Angioplasty (PTCA) Catheters (FDA; September 8, 2010).</p>
Conclusion:	<p>This information supports a determination of substantial equivalence between the Sapphire NC PTCA catheter and the predicate devices described above.</p>



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
10903 New Hampshire Avenue  
Document Control Room - WO66-G609  
Silver Spring, MD 20993-0002

OrbusNeich Medical, Inc.  
c/o Mr. John D. Pazienza  
Director, Product Development  
5363 NW 35<sup>th</sup> Avenue  
Fort Lauderdale, FL 33309

SEP - 1 2011

Re: K103808  
Trade/Device Name: Sapphire NC Coronary Dilatation Catheter  
Regulation Number: 21 CFR 870.5100  
Regulation Name: PTCA Catheters  
Regulatory Class: Class II (two)  
Product Code: LOX  
Dated: August 26, 2011  
Received: August 29, 2011

Dear Mr. Pazienza:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

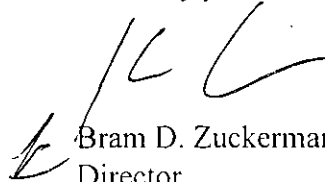
If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register. Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act

or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please go to <http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm> for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (240) 276-3150 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,



Bram D. Zuckerman, M.D.  
Director  
Division of Cardiovascular Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

**Indications for Use**

510(k) Number: K103808

Device Name Sapphire NC Coronary Dilatation Catheter

Indications for Use: The Sapphire NC Coronary Dilatation Catheter is indicated for:

- balloon dilatation of the stenotic portion of a coronary artery or bypass graft stenosis in patients evidencing coronary ischemia for the purpose of improving myocardial perfusion
- balloon dilatation of a coronary artery occlusion for the treatment of acute myocardial infarction
- in-stent restenosis
- post-delivery expansion of balloon expandable coronary stents

Note: The subject device was tested on the bench with the OrbusNeich Blazer Cobalt-Chromium (CoCr) Alloy Stent. All stents should be deployed in accordance with the manufacturer's indications and instructions for use.

Prescription Use X AND/OR Over-The-Counter Use \_\_\_\_\_  
(Part 21 CFR 801 Subpart D) (21 CFR 801 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

[Signature]  
(Division Sign-Off)  
Division of Cardiovascular Devices

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